

WHAT IS CLAIMED IS:

1. An eosinophil eotaxin receptor, free from
receptor-associated proteins.
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2. The eosinophil eotaxin receptor of Claim 1 which is
human.
3. An isolated eosinophil eotaxin receptor.
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4. The eosinophil eotaxin receptor of Claim 3 which is
human.
5. The receptor of Claim 2 which comprises a full
15 length receptor or which comprises the amino acid sequence (SEQ ID
NO:1).
6. The receptor of Claim 4 which comprises a full
length receptor or which comprises the amino acid sequence (SEQ ID
20 NO:1).
8. A functional equivalent of the eosinophil eotaxin
receptor of Claim 1.
- 25 9. A nucleic acid which encodes an eosinophil eotaxin
receptor or a functional equivalent, said nucleic acid being free
from associated nucleic acids.
- 30 10. A nucleic acid according to Claim 9 which encodes a
human eosinophil eotaxin receptor, or a functional equivalent.

11. The nucleic acid of Claim 10 which is a DNA.
12. The nucleic acid of Claim 11 which comprises the nucleotide sequence (SEQ ID NO:2).
13. The nucleic acid of Claim 12 which further comprises the nucleotide sequence (SEQ ID NO:3).
14. The nucleic acid of Claim 13 which further comprises the nucleotide sequence (SEQ ID NO:4).
15. A vector comprising a nucleic acid which encodes an eosinophil eotaxin receptor receptor, or a functional equivalent.
16. A vector according to Claim 15 which is selected from the group consisting of: plasmids, and modified viruses, yeast artificial chromosomes, bacteriophages and cosmids or transposable elements
17. A vector according to Claim 16 wherein the nucleic acid encodes human eosinophil eotaxin receptor receptor or a functional equivalent.
18. A host cell comprising a vector according to Claim 17.
19. The host cell of Claim 18 wherein the nucleic acid encodes human eosinophil eotaxin receptor receptor, or a functional equivalent.
20. The host cell of Claim 19 which is from the AML14.3D10 cell line.

21. A nucleic acid encoding an eosinophil eotaxin receptor clone that belongs to the β -chemokine receptor family and that hybridizes with a nucleotide which a human eosinophil eotaxin receptor under reduced stringency of hybridization.

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22. A method to determine the presence of a compound which binds to an eosinophil eotaxin receptor comprising:

- (a) introducing a nucleic acid which encodes an eosinophil eotaxin receptor into a cell under conditions so that eosinophil eotaxin receptor is expressed;
- (b) introducing a detector molecule or a nucleic acid encoding a detector molecule into the cell, wherein the detector molecule is directly or indirectly responsive to a eosinophil eotaxin-ligand binding event;
- (c) contacting the cell with a compound suspected of binding to the eosinophil eotaxin receptor; and
- (d) determining whether the compound binds to the eosinophil eotaxin receptor by monitoring the detector molecule.

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23. The method of Claim 22 wherein the eosinophil eotaxin receptor is human.

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24. The method of Claim 22 wherein the nucleic acid which encodes an eosinophil eotaxin receptor comprises the nucleotide sequence (SEQ ID NO:2).

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25. The method of Claim 22 wherein the result of step (d) is compared to that obtained using a known ligand of the eosinophil eotaxin receptor.

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26. The method of Claim 25 wherein the known ligand of the eosinophil eotaxin receptor is eotaxin.

27. The method of Claim 25 wherein the known ligand of the eosinophil eotaxin receptor is RANTES.

5 28. The method of Claim 25 wherein the known ligand of the eosinophil eotaxin receptor is MCP-3.

29. The method of Claim 22 wherein the eosinophil eotaxin receptor is expressed in a host cell which does not naturally express the human eosinophil eotaxin receptor

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30. The method of Claim 29 wherein the host cell is from the AML14.3D10 cell line.

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31. A ligand identified by the method of Claim 22.

32. A ligand identified by the method of Claim 23.

33. A ligand identified by the method of Claim 24.

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34. A ligand identified by the method of Claim 25.

35. A ligand identified by the method of Claim 30.